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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,280	09/08/2000	Hironobu kageyama	1341.1061/JDH	3557

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EXAMINER

RIOS CUEVAS, ROBERTO JOSE

ART UNIT PAPER NUMBER

2836

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,280

Applicant(s)

KAGEYAMA, HIRONOBU

Examiner

Roberto J Rios

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 2,3,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 22 November 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the main control unit including a converting section. The claim further recites the converting section converting the second controlling voltage and supplying said converted voltage to the unit side control section unit. However, the claim recites the main control unit receiving the third controlling voltage. Moreover, the specification recites that the voltage received by the converting section is converted and supplied to the main control section and not to the unit side control section unit. It is believed applicant meant the converting section 202_{1-n} which receives the second controlling voltage through rush current prevention circuit (102_{1-n}) from the control power supply unit (203_{1-n}) and provides said converted voltage to the unit side control section unit (17_{1-n}).

3. The following art rejection will be made as best understood by the Examiner in light of the above 35 USC 112 rejections.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Linde (US patent 5,745,670) and Kim* (US patent 5,886,424).

*Reference is provided to further support the Examiner's position as traversed by applicant.

As per claim 2, AAPA (Figure 5) teaches all the limitations including the control power supply unit providing power to the main power supply control section, the unit side control section and the main control section but fails to teach the control power supply section in a parallel redundancy structure providing power to each unit side control section unit. However, Linde teaches a power supply device comprising a plurality of power supply units (10, 10'...) parallel connected, wherein each power supply unit comprises a control unit (30) receiving power from its internal supply (12) and from the internal supplies of other power supply units through a power bus (Figure 3, col. 5, line 13).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of AAPA with the teachings of Linde such that the control unit is also powered by the control power supply unit of another power supply unit for the purpose of enabling the control units to function independent of the operational condition of the internal supply.

Moreover, Linde teaches the control unit receiving inputted controlling voltage supply (power line 24) but does not specifically disclose a converting unit for outputting

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said received voltage to said control unit. However, *Kim teaches a power supply unit, wherein a voltage converter (24) is inserted in an upstream side of a logic control circuit (25) for providing a plurality of constant operating voltages (col. 5, lines 53-61; col. 4, lines 17-22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Linde such that a converting unit for outputting said received voltage to said control unit is provided for the purpose of providing constant operating voltage to said control unit.

As per claim 3, the combination of AAPA (Figure 5) in view of Linde teaches providing rush current prevention circuits (14) and (16) in the downstream side of the main power supply unit and the control power supply unit respectively for preventing a rush current from flowing into the power units. Furthermore, AAPA (Figure 6) teaches that rush current prevention circuit (42) could be provided upstream the unit side control section unit for preventing a rush current from flowing into the control unit. Thus, it would have been obvious to one of ordinary skill in the art to provide all of said rush current prevention circuits for the purpose of completely isolating the power supply units from inrush currents that could damage the power supply units.

As per claim 6, AAPA (Figure 5) teaches all the limitations including the control power supply unit providing power to the main power supply control section, the unit side control section and the main control section but fails to teach the control power supply section in a parallel redundancy structure providing power to each unit side control section unit. However, Linde teaches a power supply device comprising a

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plurality of power supply units (10, 10'...) parallel connected, wherein each power supply unit comprises a control unit (30) receiving power form its internal supply (12) and from the internal supplies of other power supply units through a power bus (Figure 3, col. 5, line 13).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of AAPA with the teachings of Linde such that the control unit is also powered by the control power supply unit of another power supply unit for the purpose of enabling the control units to function independent of the operational condition of the internal supply.

As per claim 7, AAPA (Figure 5) teaches all the limitations including the control power supply unit providing power to the main power supply control section, the unit side control section and the main control section but fails to teach the control power supply section in a parallel redundancy structure providing power to each unit side control section unit and a converting section supplying a converted voltage to the unit side control section. However, Linde teaches a power supply device comprising a plurality of power supply units (10, 10'...) parallel connected, wherein each power supply unit comprises a control unit (30) receiving power form its internal supply (12) and from the internal supplies of other power supply units through a power bus (Figure 3, col. 5, line 13).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of AAPA with the teachings of Linde such that the control unit is also powered by the control power supply unit of another power

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supply unit for the purpose of enabling the control units to function independent of the operational condition of the internal supply.

Moreover, Linde teaches the control unit receiving inputted controlling voltage supply (power line 24) but does not specifically disclose a converting unit for outputting said received voltage to said control unit. However, *Kim teaches a power supply unit, wherein a voltage converter (24) is inserted in an upstream side of a logic control circuit (25) for providing a plurality of constant operating voltages (col. 5, lines 53-61; col. 4, lines 17-22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Linde such that a converting unit for outputting said received voltage to said control unit is provided for the purpose of providing constant operating voltage to said control unit.


Response to Arguments

6. Applicant's arguments filed 07/14/2003 have been fully considered but they are not persuasive.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Communication with PTO

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rios whose telephone number is (703) 306-5518. In the event that Examiner Rios cannot be reached, his supervisor, Brian Sircus may be contacted at (703) 308-3119. The fax number for Before-Final communications and After-Final communications is (703) 872-9306.



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